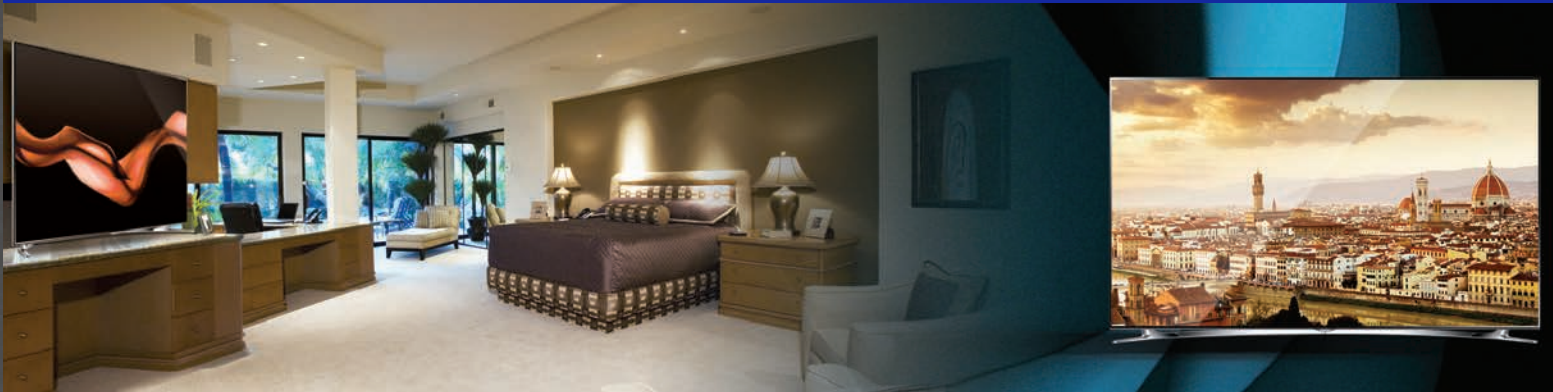# Samsung HB890 and 690 Series

Slim, adaptable, cost-effective displays designed for premium hospitality environments

Highlights

- Create a sophisticated viewing environment with the premium luxury design of streamlined LED displays
- Offer an upgraded guest experience with wireless connection to personal devices
- Customize important hotel content using the Samsung LYNK™ SINC Internet Protocol (IP) network
- Protect content with Samsung LYNK™ Digital Rights Management (DRM) technology
- Offer a wide range of channel selections with the built-in DVB-T2/C/S2 tuner
- Control expenditures with energy-saving features

Create an enhanced in-room entertainment experience

Owners and managers of premium hotels want to provide the superior-quality in-room experience that sophisticated travelers expect. Yet, the cost of IP-based equipment and interactive solutions can be prohibitive. In addition, many premium TVs on the market provide a varied selection of features, but include an interface that is difficult to use.

Samsung HB890 and 690 Series displays are integrated, high-performing TVs that include many desirable features and an interface designed for ease of use. These displays contribute to a pleasant room ambiance and superior view-ing experience because of their slim, streamlined design. With smart connectivity features, the screens offer myriad entertainment options for guests. Hotel staff members can customize the welcome menu with a straightforward inter-face. Additionally, hotels can stay on budget with affordable content-streaming options and other cost-saving features.

Upgrade premium hotel suites with superior display design

HB890 and 690 Series displays are designed especially for 5-star hotel suites. The displays feature a full metal frame and stand for an elevated level of sophistication to enhance the ambiance of high-end hotel rooms.

HB890 and 690 Series displays feature large format display (LFD) LED technology that yields an ultra-thin profile, at just 49.5 mm (1.95 in.) for the HB690 and 34.9 mm (1.37 in.) for the HB890. These displays are one-third the thickness of traditional cold cathode fluorescent lighting (CCFL) displays. The slim profile enables the displays to fit into tight hotel room spaces.

The displays also feature a narrow, 12 mm (0.47 in.) bezel. Without a cumbersome frame, the displays virtually blend into the background, allowing guests to focus on the images projected rather than the equipment delivering them.

Figure 1. HB890 design

Figure 2. HB690 design

Wireless, information and channel options satisfy guest requirements.

Expand flexibility with guest display options

HB890 and 690 Series displays transform a guest room TV into a multidevice entertainment hub with the following included applications:

Soft AP

Soft AP provides a software access point (AP) or hot spot. Up to four devices can connect wirelessly to the AP, and guests can adjust the signal level and change channels to suit their needs.

AllShare

AllShare technology, powered by Digital Living Network Alliance (DLNA), enables guests to play personal content through a wireless connection on their room TV. Content includes movies, photos and music.

Smart View

Smart View software provides a ready connection for guests' mobile devices. The application allows TV screen mirroring technology with an application through Wi-Fi service. Using this application, guests can view content on the TV with their own mobile devices. Compatible devices now include the Samsung GALAXY S II. Future compatible devices are expected to include the GALAXY Tab 7.0 Plus and the Apple® iPhone® and iPad® with iOS v4, v5 and v6.

Tailor a welcome screen to suit the hotel and its guests

With the LYNK™ SINC application, hotel staff can provide a customized display menu for guests. For example, the menu can offer Hotel Info, Hotel Services, Local Info and Events sections. LYNK™ SINC includes three user interface (UI) templates so hotel personnel can choose the one that works best for the hotel's clientele. The UI is highly flexible, with transparency and background images. The LYNK™ SINC application offers the following features:

- Customized service for groups or individuals
- TV monitoring and management
- Internet protocol TV (IPTV) live multicast

The application also supports Samsung Smart Hub, which enables hotels to download widgets and deliver customized content to guests.

LYNK™ SINC helps reduce total cost of ownership (TCO) because no set-top box (STB) is needed. Also, the solution is not dependent on a system integrator (SI). In addition, no maintenance fee is required and installation costs are low. Guests can use the simplified system to access tourist guidance, weather and other useful information. They can also access popular social media sites, such as Facebook™, Twitter™ and YouTube™.

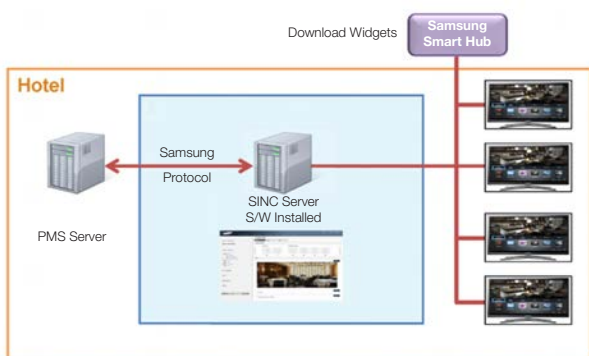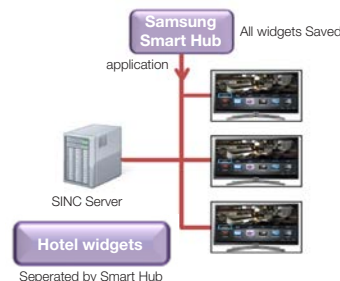*Figure 3. Samsung LYNK™ SINC is a well-organized solution for ordering and serving content to hotel room displays.*

Figure 4. SINC 2.1 includes a library of widgets so users can choose and install applications without an Internet connection.

Reduce costs and improve security with robust DRM technology

Samsung LYNK™ DRM technology provides hoteliers with a protected and cost-effective alternative to traditional hardware-based content protection systems. The solution allows encrypted content to pass safely and to display on hotel TVs.

A software-only implementation, LYNK™ DRM technology reduces the need for additional equipment and provides quicker recovery for Conditional Access System (CAS) problems. Enhanced functions include a support video on demand (VoD) system. To help ensure reliability of the system, coverage extends to the enlargement of head-end equipment for cable operators.

Offer guests a wide variety of channel selections

The built-in DVB-T2/C/S2 tuner is a Quad tuner that delivers multiple channels directly to hotel TVs without the need for a head-end system. The displays also support multiple satellite inputs from Digital Satellite Equipment Control (DiSEqC). This system lowers TCO by eliminating the need to purchase head-end devices for satellite and terrestrial channels.

It also enhances the guest experience by enabling guests to enjoy a variable range of high-definition (HD) satellite and terrestrial TV channels.

Improve the bottom line with energy-efficient features

Samsung HB890 and 690 Series offers many features to help busi- nesses save energy and reduce costs. The LED displays are cost-effective because they use less energy, emit less carbon dioxide (CO_2) and require less maintenance than conventional hospitality displays. Additionally, the displays are built with fewer harmful materials than cold- cathode fluorescent lamps (CCFLs), so manufacturing and recycling processes are more efficient and environmentally friendly.
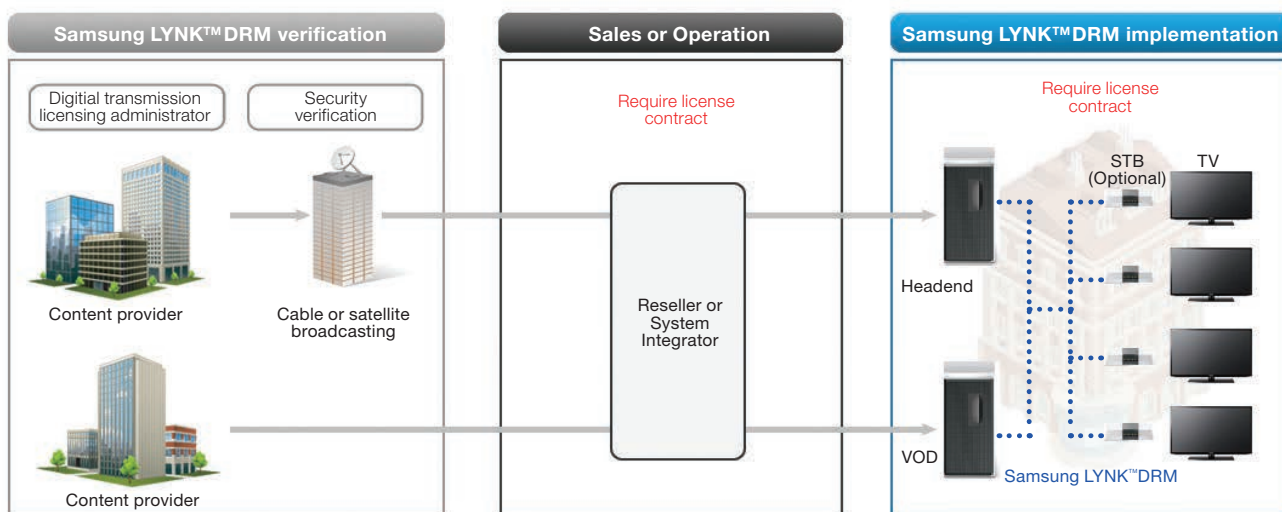
Figure 5. Samsung LYNK™ DRM provides powerful security functions with more flexibility.

HB890

46"/55"/65"

• HG46EB890XB
• HG55EB890XB
• HG65EB890XB

Connectors
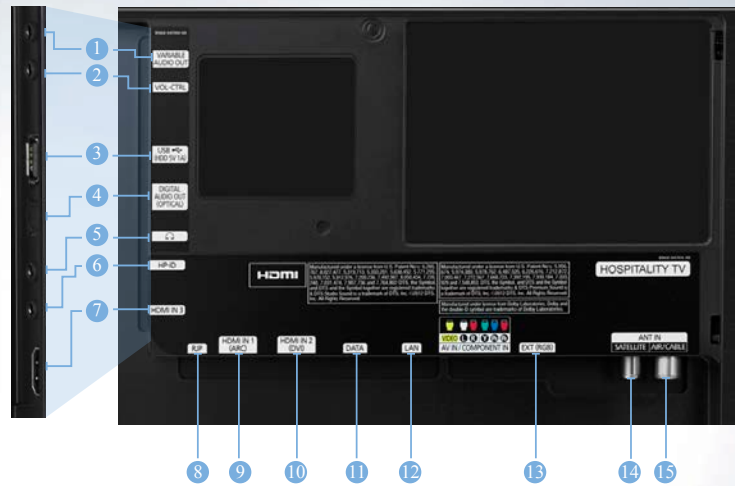
1. VARIABLE AUDIO OUT
2. VOL-CTRL
3. USB
4. DIGITAL AUDIO OUT(OPTICAL)
5. HEADPHONE OUT

6. HEADPHONE ID
7. HDMI IN 3
8. RJP
9. HDMI IN (ARC)
10. HDMI IN 2 (DVI)

11. DATA
12. RJ45(LAN)
13. SCART
14. ANT IN(SATELLITE)
15. ANT IN(AIR/CABLE)

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HB690
28"

• HG28EB690BB

Connectors

1. VARIABLE AUDIO OUT

2. VOL-CTRL

3. USB

4. HDMI IN 3

5. HDMI IN 2 (DVI)

6. HDMI IN (ARC)

7. ANT IN(SATELLITE)

8. ANT IN(AIR/CABLE)

9. RJP

10. DIGITAL AUDIO OUT(OPTICAL)

11. PC/DVI AUDIO IN

12. RJ45(LAN)

13. HEADPHONE OUT

14. HEADPHONE ID

15. SCART

16. DATA

17. PC IN

32"/40"/46"/55"

• HG32EB690QB

• HG40EB690QB

• HG46EB690QB

• HG55EB690QB

Connectors

1. VARIABLE AUDIO OUT

2. VOL-CTRL

3. USB

4. HDMI IN 3

5. HDMI IN 2 (DVI)

6. HDMI IN (ARC)

7. ANT IN(SATELLITE)

8. ANT IN(AIR/CABLE)

9. RJP

10. DIGITAL AUDIO OUT(OPTICAL)

11. PC/DVI AUDIO IN

12. RJ45(LAN)

13. HEADPHONE OUT

14. HEADPHONE ID

15. SCART

16. DATA

17. PC IN

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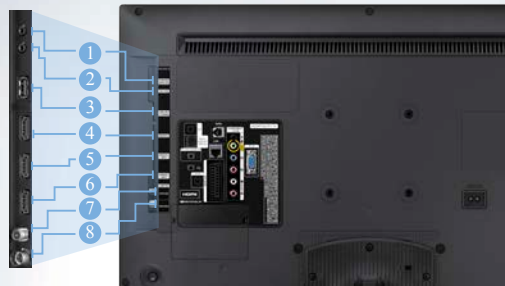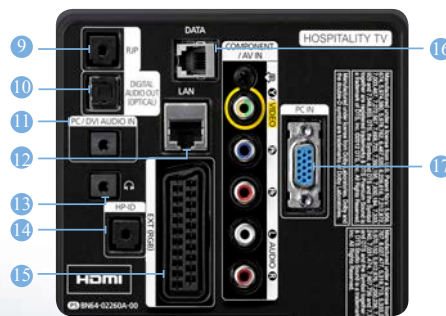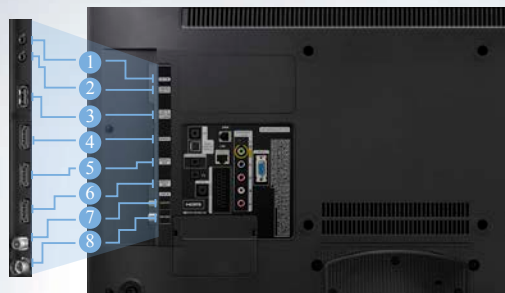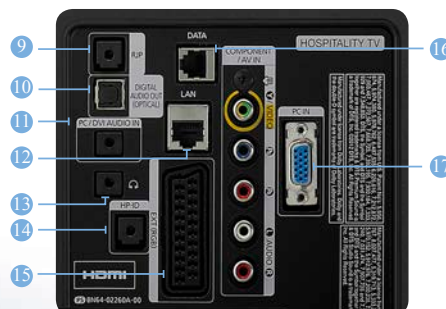# Samsung HB890 and 690 Series

Specifications

Basic Info	EU/CIS	HB890		
	Model Name	HG46EB890XB	HG55EB890XB	HG65EB890XB
Display	Backlight	LED		
	Inch	46	55	65
	Resolution	1920 x 1080		
	HD/FHD	FHD		
	Ultra Clear Panel	Yes		
Video	Picture Engine	3D HyperReal Engine		
	Dynamic Contrast Ratio	Mega Contrast		
	Static Contrast Ratio	5000:1	5000:1	5500:1
	Response Time	4ms	4ms	6.5ms
	Viewing angle (H/V)	178/178		
	Brightness	450 nits		
	Micro Dimming	Micro Dimming		
	Wide Color Enhancer Plus	Yes		
	Auto Motion Plus 120/240Hz	240Hz		
	Film Mode	Yes		
Audio	Dolbyt	Dolby Digital Plus / Dolby Pulse		
	SRS / DNSe+	SRS TheatherSound HD		
	dts 2.0 + Digital Out	DTS Premium Audio		
	3D Sound	Yes		
	Speaker Type	Down Firing + Full Range		
	Sound Output (RMS)	40W(10x2, woofer 10x2)		
	Variable Speaker Output	4W (Mono, 8Ω)		
Feature	Smart Hub / Apps	Yes		
	Photos, Clip & Music	Yes		
	Samsung SMART View	Yes (Clone View only)		
	Web Browser	Yes		
	Voice Recognition	Yes		
	Samsung TV Apps supported	Yes		
	Samsung 3D / 3D Converter	Yes		
	Smart Phone Remote Support	Yes		
	AllShare(Powered by DLNA)	Yes		
	AllShare Cast (Screen Mirroring)	Yes		
	ConnectShare™ (USB2.0)	Movie		
	Wireless LAN Built-in	Yes		
	Soft AP / BT HID Built-in	Yes		
	USB HID Support / Sound Share	Yes		
	Hbb TV / Digital Noise Filter	Yes		
	OSD Language	26 European Languages		
	HDMI 1.4 3D Auto Setting	Yes		
	HDMI 1.4 A / Return Ch. Support (ARC)	Yes		
	Anynet+ (HDMI-CEC) / Sleep Timer	Yes		
	BD Wise Plus / Auto Channel Search	Yes		
	Auto Power Off / Auto Volume Leveler	Yes		
	Caption (Subtitle) / Wake-up Timer	Yes		
	Game Mode / Picture-In-Picture	Yes		

Specifications

Basic Info	EU/CIS	HB890		
Model Name		HG46EB890XB	HG55EB890XB	HG65EB890XB
Hospitality Feature	Hospitality Plug&Play(Easy Set-up)		Yes	
	Music Mode (Imput : PC/AV/Component)		Yes	
	Music Mode BackLight on/off		Yes	
	Audio Loop in (Headphone extension)		Yes	
	RJ 12 / IR Pass Through		Yes	
	Power on Status Setting (Keycard/Master power off)		Yes	
	Jack Pack Compatiblity (HD media hub)		Yes	
	USB Cloning		Yes	
	Bathroom Speaker Output		Yes	
	Hotel Channel List		Yes	
	Hotel Logo Display with Time out setting (BMP)		Yes	
	Hotel Logo Display (Movie file)		Yes	
	Welcome message		Yes	
	Auto Source mode		Yes	
	Energy saving mode(BLU control)		Yes	
	Multi code remote control		Yes	
	Screwed Remote battery cover		Yes	
	Alarm Key		Yes	
	Mixed channel list (DVB-T/T2/C/S2, Analog)		Yes	
	Samsung LYNK™ REACH		Yes	
	Samsung LYNK™ SINC Compatibility		Yes	
	H-Browser Compatibility		Yes	
	My channel		Yes	
	Smoovie		Yes	
	Samsung LYNK™ REACH Server Compatibility		Yes	
	Sound bar compatibility		Yes	
	Samsung LYNK™ DRM		Yes	
	S/W Clock		No	
System	DTV Tuner		DVB-T2/C/S2	
	Analog Tuner		Yes	
	CI/ CI+		CI+ (1.3)	
	MHP / MHEG (version)/ OHTV / GINGA		MHEG 5(UK, Ireland)	
	DiSEqC		Yes	
Design	Front Color		Black	
	Stand Type		Arch	
	Swivel (Left/Right)		No	
Dimension (WxHxD)	Set Size with Stand (mm)	1032.7 * 634.3 * 257.7	1224.2 * 741.9 * 310.3	1447.3 * 873.7 * 368.4
	Set Size without Stand (mm)	1032.7 * 599.5 * 34.9	1224.2 * 707.2 * 34.9	1447.3 * 837.6 * 38.4
	Set Weight with Stand (kg)	14.0	18.3	26.9
	Set Weight without Stand (kg)	12.8	16.8	24.6
Vesa	Dimensions (mm)	200*200	400*400	400*400
	Screw Size		M8	

Samsung HB890 and 690 Series

Specifications

EU/CIS		HB890		
Basic Info	Model Name	HG46EB890XB	HG55EB890XB	HG65EB890XB
Input & Output	HDMI (Side/Rear)	3/0		
	USB (Side/Rear)	1/0		
	Component In (Y/Pb/Pr) (Side/Rear)	1/0		
	Composite In (AV) (Side/Rear)	1 (Common Use for Component Y)		
	RJ45(LAN) (Side/Rear)	1/0		
	Headphone (Side/Rear)	1/0		
	Digital Audio Out (Optical) (Side/Rear)	1/0		
	RF In (Terrestrial/Cable input) (Side/Rear)	1/0		
	RF In (Satellite input) (Side/Rear)	1/0		
	RS232C (AV CONTROL) (Side/Rear)	1 (Common Use for RJP)		
	CI Slot (Side/Rear)	1/0		
	Scart (Side/Rear)	1/0		
	Variable Audio Out	Yes		
	VOL-CTRL	Yes		
	RJ12	Yes		
	Headphone ID	Yes		
	RJP(For Remote Jackpack)	Yes		
Power	Power Supply (V)	AC220-240V 50/60Hz		
	Power Consumption (Rated) (Watts)	145W	170W	To be fixed
	Power Consumption (Stand-by) (Watts)	Under 0.5W		To be fixed
	Power Consumption (Typical) (Watts)	67W	72W	To be fixed
	Yearly Power consumption (EU standard) (KWh)	98KWh	105KWh	To be fixed
Eco	Energy Efficiency Class	A	A+	To be fixed
	Eco Sensor	Yes		
Accessory	Remote Controller Model	TM1390A + TM1240		
	Battery (for Remote Control)	Yes		
	Mini Wall Mount Support	Yes		
	Vesa Wall Mount Support	Yes		
	Slim Gender Cable	SCART, 1AV, 1Component(AV share), CI+		
	Power Cable	Yes		
	Quick Install Guide	Yes		
	Data Cable	Yes		
	Purecare White remote control	No		
	Angle Adapter (for Side RF Tuner)	No		
	Stand Mount Kit	No		

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Specifications

	EU/CIS		HB690			
Basic Info	Model Name	HG28EB690BB	HG32EB690QB	HG40EB690QB	HG46EB690QB	HG55EB690QB
Display	Backlight	LED				
	Inch	28	32	40	46	55
	Resolution	1366 x 768	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
	HD/FHD	HD	FHD	FHD	FHD	FHD
Video	Picture Engine	HyperReal Engine				
	Dynamic Contrast Ratio	Mega Contrast				
	Static Contrast Ratio	3000:1	5000:1	5000:1	5000:1	5000:1
	Response Time	6.5ms	8ms	6ms	6ms	6ms
	Viewing angle (H/V)	178/178				
	Brightness	300 nits	350 nits	350 nits	350 nits	350 nits
	Micro Dimming	No	Micro Dimming	Micro Dimming	Micro Dimming	Micro Dimming
	Wide Color Enhancer Plus	Yes				
	Auto Motion Plus 120/240Hz	No	120Hz	120Hz	120Hz	120Hz
	Film Mode	Yes				
Audio	Dolby	Dolby Digital Plus / Dolby Pulse				
	SRS / DNSe+	SRS TheaterSound HD				
	dts 2.0 + Digital Out	DTS Premium Audio				
	Speaker Type	Down Firing + Full Range				
	Sound Output (RMS)	5W x 2	10Wx2	10Wx2	10Wx2	10Wx2
	Variable Speaker Output	4W (Mono, 8Ω)				
Feature	Smart Hub	Yes				
	Apps	Yes				
	Photos, Clip & Music	Yes				
	Samsung SMART View	Yes (Clone View only)				
	Web Browser	Yes				
	Samsung TV Apps supported	Yes				
	Smart Phone Remote Support	No	Yes	Yes	Yes	Yes
	AllShare(Powered by DLNA)	No	Yes	Yes	Yes	Yes
	AllShare Cast (Screen Mirroring)	No	Yes	Yes	Yes	Yes
	ConnectShare™ (USB2.0)	Movie				
	Wireless LAN Built-in	No	Yes	Yes	Yes	Yes
	Soft AP	No	Yes	Yes	Yes	Yes
	BT HID Built-in	No	Yes	Yes	Yes	Yes
	USB HID Support	No	Yes	Yes	Yes	Yes
	Sound Share	No	Yes	Yes	Yes	Yes
	Hbb TV / Digital Noise Filter	Yes				
	OSD Language	26 European Languages				
	HDMI 1.4 A / Return Ch. Support (ARC)	Yes				
	Anynet+ (HDMI-CEC) / Sleep Timer	Yes				
	BD Wise Plus / Auto Channel Search	Yes				
	Auto Power Off / Auto Volume Leveler	Yes				
	Caption (Subtitle) / Wake-up Timer	Yes				
	Game Mode / Picture-In-Picture	Yes				

Samsung HB890 and 690 Series

Specifications

Basic Info	EU/CIS	HB690				
Basic Info	Model Name	HG28EB690BB	HG32EB690QB	HG40EB690QB	HG46EB690QB	HG55EB690QB
Hospitality Feature	Samsung LYNK™ REACH	Yes				
	Samsung LYNK™ SINC Compatibility	Yes				
	H-Browser Compatibility	Yes				
	My channel	Yes				
	Smoovie	Yes				
	Samsung LYNK™ REACH Server Compatibility	Yes				
	Sound bar compatibility	Yes				
	Samsung LYNK™ DRM	Yes				
Input & Output	HDMI (Side/Rear)	3/0				
	USB (Side/Rear)	1/0				
	Component In (Y/Pb/Pr) (Side/Rear)	0/1				
	Composite In (AV) (Side/Rear)	1 (Common Use for Component Y)				
	RJ45(LAN) (Side/Rear)	0/1				
	Headphone (Side/Rear)	0/1				
	Digital Audio Out (Optical) (Side/Rear)	0/1				
	PC In (D-sub) (Side/Rear)	0/1				
	PC Audio In (Mini Jack) (Side/Rear)	0/1				
	DVI Audio In (Mini Jack) (Side/Rear)	1 (Common Use for PC Audio in)				
	RF In (Terrestrial/Cable input) (Side/Rear)	1/0				
	RF In (Satellite input) (Side/Rear)	1/0				
	RS232C (AV CONTROL) (Side/Rear)	1 (Common Use for RJP)				
	CI Slot (Side/Rear)	1/0				
	Scart (Side/Rear)	0/1				
	Variable Audio Out	Yes				
	VOL-CTRL	Yes				
	RJ12	Yes				
	Headphone ID	Yes				
	RJP(For Remote Jackpack)	Yes				
System	DTV Tuner	DVB-T2/C/S2				
	Analog Tuner	Yes				
	CI/ CI+	CI+ (1.3)				
	MHP / MHEG (version)/ OHTV / GINGA	MHEG 5 (UK, Ireland)				
	DiSEqC	Yes				
Design	Front Color	Black				
	Stand Type	Round	Square	Square	Square	Square
	Swivel (Left/Right)	No	90/90	90/90	90/90	90/90
Dimension (WxHxD)	Set Size with Stand (mm)	645.0*435.6*252.6	738.2*502.2*191.7	928.2*612.0*227.7	1059.8*686.0*227.7	1250.4*793.0*227.7
	Set Size without Stand (mm)	645.0*384.9*49.5	738.2*437.0*49.5	928.2*543.8*49.6	1059.8*617.7*49.6	1250.4*724.6*48.8
	Set Weight with Stand (kg)	4.6	7.2	11.7	14.4	19.8
	Set Weight without Stand (kg)	4.2	5.2	8.8	11.5	16.9
Vesa	Dimensions (mm)	100*100	200*200	200*200	400*400	400*400
	Screw Size	M4	M8	M8	M8	M8

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Specifications

	EU/CIS	HB690				
Basic Info	Model Name	HG28EB690BB	HG32EB690QB	HG40EB690QB	HG46EB690QB	HG55EB690QB
Hospitality Feature	Hospitality Plug&Play (Easy Set-up)	Yes				
	Music Mode (Imput : PC/AV/Component)	Yes				
	Music Mode BackLight on/off	Yes				
	Audio Loop in (Headphone extension)	Yes				
	RJ 12 / IR Pass Through	Yes				
	Power on Status Setting	Yes				
	Jack Pack Compatiblity (HD media hub)	Yes				
	USB Cloning	Yes				
	Bathroom Speaker Output	Yes				
	Hotel Channel List	Yes				
	Hotel Logo Display with Time out setting (BMP)	Yes				
	Hotel Logo Display (Movie file)	Yes				
	Welcome message	Yes				
	Auto Source mode	Yes				
	Energy saving mode(BLU control)	Yes				
	Alarm Key	Yes				
	Mixed channel list(DVB-T/T2/C/S2, Analog)	Yes				
Power	Power Supply (V)	AC220-240V 50/60Hz				
	Power Consumption (Rated) (Watts)	51W	92W	122W	128W	150W
	Power Consumption (Stand-by) (Watts)	Under 0.5W				
	Power Consumption (Typical) (Watts)	25W	52W	62W	62W	75W
	Yearly Power consumption (EU standard) (KWh)	37KWh	76KWh	91KWh	91KWh	110KWh
Eco	Energy Efficiency Class	A	B	A	A+	A+
	Eco Sensor	No	Yes	Yes	Yes	Yes
Accessory	Remote Controller Model	TM1240				
	Battery (for Remote Control)	Yes				
	Mini Wall Mount Support	No	Yes	Yes	Yes	Yes
	Vesa Wall Mount Support	Yes				
	Slim Gender Cable	CI+				
	Power Cable	Yes				
	Quick Install Guide	Yes				
	Data Cable	Yes				
	Angle Adapter (for Side RF Tuner)	2	No	No	No	No
	Stand Mount Kit	No	Yes	Yes	Yes	Yes

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Legal and additional information

About Samsung Electronics Co., Ltd.

Samsung Electronics Co., Ltd. is a global leader in semi-conductor, telecommunication, digital media and digital convergence technologies with 2011 consolidated sales of US$143.1 billion. Employing approximately 227,000 people in 197 offices across 75 countries, the company operates three separate organizations to coordinate its 10 indepen- dent business units: Consumer Electronics (CE), compris- ing Visual Display, Home Appliances, Printing Solution, and Health and Medical Equipment; Information Technology and Mobile Communications (IM), including Mobile Communications, Network, and Digital Imaging; and Device Solutions (DS), consisting of Memory, System LSI, and LED. Recognized for its industry-leading performance across a range of economic, environmental and social cri-teria, Samsung Electronics was named the world's most sustainable technology company in the 2011 Dow Jones Sustainability Index. For more information,
please visit www.samsung.com

For more information

For more information about Samsung HB890 and 690 Series, visit www.samsung.com

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1. This feature is available only in the European HB765 model.
2. This feature is not available in the United States, China or Hong Kong.

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Suwon-si, Gyeonggi-do 443-772,
Korea

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